

CLAIMS:

1. A method of printing an interface surface associated with a product item, the method including in a computer system:

- 5 (a) determining product identity data indicative of an identity of the product item; and,
 (b) controlling a printer to thereby print a plurality of coded data portions on the interface surface, each coded data portion being indicative of the product identity data such the product identity data can be determined by sensing any one of the coded data portions with a sensing device.

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2. The method of claim 1, wherein the method includes in the computer system:

- (c) receiving indicating data at least partially indicative of the identity of the product item; and,
 (d) generating, using the indicating data, the product identity data.

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3. The method of claim 1, wherein at least one of the product item and the interface surface is associated with an RFID tag, the method including reading the RFID tag to determine the product identity data.

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4. The method of claim 1, wherein at least one of the product item and the interface surface is associated with a barcode, the method including sensing the barcode to determine the product identity data.

5. The method of claim 1, wherein the method includes encoding the product identity data by printing the barcode on the interface surface or the product item.

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6. A method of indicating an identity of a product item, the method including:

- (e) determining indicating data indicative of an identity of the product item;
 (f) determining, using the indicating data, at least one coded data portion indicative of the identity of the product item; and,
 (g) determining, using the indicating data, at least one barcode indicative of the identity of the product item; and,

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(h) printing, on an interface surface associated with the product item:

- (i) a plurality of coded data portions on the interface surface, each coded data portion being indicative of the product identity data such that the product identity

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data can be determined by sensing any one of the coded data portions with a sensing device; and,

(ii) the barcode.

5 7. The method of claim 6, wherein at least one of the product item and the interface surface is associated with an RFID tag, the method including reading the RFID tag to determine the indicating data.

8. A method of indicating an identity of a product item, the method including:

- 10 (a) determining indicating data indicative of an identity of the product item;
- (b) determining, using the indicating data, at least one coded data portion indicative of the identity of the product item; and,
- (c) determining, using the indicating data, at least one barcode indicative of the identity of the product item; and,
- 15 (d) printing, on an interface surface associated with the product item, a plurality of coded data portions, each coded data portion being indicative of the product identity data such the product identity data can be determined by sensing any one of the coded data portions with a sensing device; and,
- (e) encoding the product identity data in an RFID tag.

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9. The method of claim 8, wherein at least one of the product item and the interface surface is associated with a barcode, the method including sensing the barcode to determine the indicating data.

10. The method of claim 6 or claim 8, wherein the method includes:

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- (a) receiving the indicating data;
- (b) generating, using the indicating data, product identity data indicative of the product identity; and,
- (c) determining, using the product identity data, the at least one coded data portion.

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11. The method of any one of claims 1, 6 and 8, wherein the method includes printing the coded data portions in infrared ink.

12. The method of any one of claims 1, 6 and 8, wherein the interface surface further includes visible markings relating to the respective product item, and wherein the method includes printing the coded data portions at least one of:

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- (a) before printing the visible markings;

- (b) substantially simultaneously with printing the visible markings; and,
- (c) after printing the visible markings.

13. The method of claim 12, wherein the method includes printing the visible markings with a
5 first printer and printing the coded data portions with a second printer.

14. The method of any one of claims 1, 6 and 8, wherein the method includes, in the computer system:

- (a) determining an identifier indicative of a nature of the product item;
- 10 (b) generating a serial number; and,
- (c) forming the product identity data from the identifier and the serial number.

15. The method of any one of claims 1, 6 and 8, wherein the method includes providing the coded data portions at respective positions, and wherein each coded data portion is further
15 indicative of the respective position.

16. The method of any one of claims 1, 6 and 8, wherein the interface surface is in the form of an adhesive label attachable to a product item.

20 17. The method of any one of claims 1, 6 and 8, wherein the coded data is indicative of an EPC associated with the product item.

18. The method of any one of claims 1, 6 and 8, wherein the coded data distinguishes the product item from every other product item.
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19. The method of any one of claims 1, 6 and 8, wherein the coded data is redundantly encoded.

30 20. The method of any one of claims 1, 6 and 8, wherein the coded data is redundantly encoded using Reed-Solomon encoding.

21. The method of any one of claims 1, 6 and 8, wherein the coded data is substantially invisible to the unaided eye.
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22. The method of any one of claims 1, 6 and 8, wherein the coded data is printed using infrared ink.

23. The method of any one of claims 1, 6 and 8, wherein the coded data is provided on the interface surface coincident with visible markings representing at least one of:

- (a) product information;
- (b) the identity of the product item; and,
- (c) an interaction request.

24. The method of any one of claims 1, 6 and 8, wherein the interface surface is at least a portion of at least one of:

- (a) product item packaging;
- (b) product item labelling;
- (c) product manuals;
- (d) product instructions; and,
- (e) a surface of the product item.

25. The method of any one of claims 1, 6 and 8, wherein the coded data is disposed over at least one of:

- (a) substantially all of any one of:
 - i. an entire product surface;
 - ii. packaging; and,
 - iii. a product label;

(b) more than 25% of any one of:

- i. an entire product surface;
- ii. packaging; and,
- iii. a product label;

(c) more than 50% of any one of:

- i. an entire product surface;
- ii. packaging; and,
- iii. a product label;

(d) more than 75% of any one of:

- i. an entire product surface;
- ii. packaging; and,
- iii. a product label.

26. The method of any one of claims 1, 6 and 8, wherein at least some of the coded data portions are indicative of at least one interaction request.

5 27. A printer for printing an interface surface associated with a product item, the printer being adapted to print a plurality of coded data portions on the interface surface, each coded data portion being indicative of product identity data, and the product identity data being indicative of an identity of the product item, such that the product identity data can be determined by sensing any one of the coded data portions with a sensing device.

10 28. The printer of claim 27, wherein the printer at least one of communicates with and includes, a computer system, the computer system being adapted to:

- (a) receive indicating data at least partially indicative of an identity of the product item;
- (b) generate, using the indicating data, the product identity data.

15 29. The printer of claim 27, wherein the printer prints the coded data portions in infrared ink.

30. The printer of claim 27, wherein the interface surface further includes visible markings relating to the respective product item, and wherein the printer prints the coded data portions at least one of:

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- (a) before printing the visible markings;
 - (b) substantially simultaneously with printing the visible markings; and,
 - (c) after printing the visible markings.

25 31. The printer of claim 30, wherein the printer prints the visible markings with a first printer and the coded data portions with a second printer.

32. The printer of claim 27, wherein at least one of the product item and the interface surface is associated with an RFID tag, the printer being adapted to read the RFID tag to determine the product identity data.

30 33. The printer of claim 27, wherein at least one of the product item and the interface surface is associated with a barcode, the printer being adapted to sense the barcode to determine the product identity data.

34. The printer of claim 27, wherein at least one of the product item and the interface surface is associated with an RFID tag, the printer being adapted to encode the product identity data in the RFID tag.

5 35. The printer of claim 27, wherein at least one of the product item and the interface surface is associated with a barcode, the printer being adapted to encode the product identity data by printing the barcode on the interface surface or the product item.

10 36. The printer of claim 27, wherein the printer provides the coded data portions at respective positions, and wherein each coded data portion is further indicative of the respective position.

37. The printer of claim 27, wherein the interface surface is in the form of an adhesive label attachable to a product item.

15 38. The printer of claim 27, wherein the coded data is indicative of an EPC associated with the product item.

39. The printer of claim 27, wherein the coded data distinguishes the product item from every other product item.

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40. The printer of claim 27, wherein the coded data is redundantly encoded.

41. The printer of claim 27, wherein the coded data is redundantly encoded using Reed-Solomon encoding.

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42. The printer of claim 27, wherein the coded data is substantially invisible to the unaided eye.

43. The printer of claim 27, wherein the coded data is printed using infrared ink.

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44. The printer of claim 27, wherein the coded data is provided on the interface surface coincident with visible markings representing at least one of:

- (a) product information;
- (b) the identity of the product item; and,
- (c) an interaction request.

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45. The printer of claim 27, wherein the interface surface is at least a portion of at least one of:

- (a) product item packaging;
- (b) product item labelling;
- (c) product manuals;
- (d) product instructions; and,
- (e) a surface of the product item.

46. The printer of claim 27, wherein the coded data is disposed over at least one of:

- (a) substantially all of any one of:
 - i. an entire product surface;
 - ii. packaging; and,
 - iii. a product label;
- (b) more than 25% of any one of:
 - i. an entire product surface;
 - ii. packaging; and,
 - iii. a product label;
- (c) more than 50% of any one of:
 - i. an entire product surface;
 - ii. packaging; and,
 - iii. a product label;
- (d) more than 75% of any one of:
 - i. an entire product surface;
 - ii. packaging; and,
 - iii. a product label.

47. A system for printing an interface surface associated with a product item, the system including:

- (a) a computer system for:
 - i. receiving indicating data indicative of an identity of the product item; and,
 - ii. generating, using the indicating data, product identity data indicative of the identity of the product item; and,
- (b) a printing system for printing a plurality of coded data portions on the interface surface, each coded data portion being indicative of the product identity data such the product identity data can be determined by sensing any one of the coded data portions with a sensing device.

48. A system according to claim 47, the printer being a printer according to claim 27.